WHAT IS CLAIMED IS:

1. A rod integrator having a reflecting surface, for emitting light that is incident on an incident-end opening from a light source through an emerging-end opening,

an end face of an outer periphery of the emerging-end opening being a scattering surface or a blaze surface that reflects the incident light on the end face toward a central axis of the rod integrator.

2. The rod integrator according to Claim 1, the end face being substantially perpendicular to the central axis.

3. The rod integrator according to Claim 1, the blaze surface of the end face having different blaze angles depending on a position of the blaze surface in the end face, the blaze angle being defined by a normal of the blaze surface and the central axis, the longer a distance between the blaze surface and the central axis is, the larger the blaze angle is.

4. The rod integrator according to Claim 1, a reflectance of the end face being approximately 80 percent or more.

5. The rod integrator according to Claim 1, the scattering surface of the end face including a plurality of V-grooves having a very small depth.

6. The rod integrator according to Claim 1, the end face further having a reflecting surface around the scattering surface.

7. An illuminator, comprising:

a light source that supplies light; and

the rod integrator according to Claim 1, that substantially uniformizes an intensity distribution of the light from the light source.

8. A projector, comprising:

the illuminator according to Claim 7;

a spatial light modulator that modulates incident light in accordance with an image signal; and

a projector lens that projects the modulated light.

9. An optical device, comprising the rod integrator according to Claim 1.